

## **RECHARGEABLE BATTERY PACK AND HOUSING**

### **ABSTRACT OF THE DISCLOSURE**

A system and method for providing a rechargeable battery system which includes a battery compartment which can accommodate either one or more non-rechargeable batteries or a rechargeable battery pack, and a rechargeable battery pack which includes recharge electronics and a detection module. The detection module detects when the rechargeable battery pack is inserted. This ensures that non-rechargeable batteries are not accidentally charged. A recharge circuit for recharging the rechargeable batteries is included. A metering module for metering the charge in the rechargeable batteries is also included in the rechargeable battery pack. The battery compartment and rechargeable provide the user with the ability to power the device from rechargeable batteries, non-rechargeable batteries, host bus or AC power, and the ability to recharge the rechargeable batteries from either the host bus or AC power.

PA 3310414 v1